

Application No. 09/632,959  
Amendment dated March 22, 2004  
Reply to Office Action of December 2, 2003

## AMENDMENTS TO THE SPECIFICATION

*Please replace the paragraph beginning on page 4, line 12 with the following paragraph:*

A particularly telling example of the competing interests between privacy and profiling is when an organization, DOUBLE CLICK, INC Double Click, Inc. of New York, New York, tied the names and addresses of individuals to their respective IP addresses. The reactions to this organization's Double Click's actions included the filing of a complaint with the Federal Trade Commission (FTC) by the Electronic Privacy Information Center and outbursts from many privacy advocates that the tracking of browsing habits of visitors is inherently invasive. Thus, even though the technology may allow for precise tracking of individuals on the Internet, companies must carefully balance the desire to profile visitors with the rights of the visitors in remaining anonymous.

*Please replace the paragraph beginning on page 4, line 21 with the following paragraph:*

The difficulty in learning more about Internet users is further complicated when the Internet users are part of a private network, such as provided by the organization AMERICA ON-LINE America On-Line (AOL®). AOL® and other private networks act as an intermediary by operating a proxy server between its member users and the Internet. The proxy server helps to create a private community of members and also insulates and protects

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the members from some invasive inquiries that can occur over the Internet. As part of this protection and insulation, many of these private networks assign its members a first set of IP addresses for routing only within the private network and do not reveal these IP addresses to entities outside of the private network, such as over the Internet. To communicate with the members, entities outside of the private network do not have direct access to the members but instead must go through the proxy servers. As should be apparent to those skilled in the art, profiling and otherwise gathering information on members of private networks can be made even more difficult due to the proxy servers.

*Please replace the paragraph beginning on page 10, line 15 with the following paragraph:*

In particular, *nslookup*, *ping*, *traceroute*, and *whois* provide the best source of information. The operation of *ping* and *traceroute* is explained in the Internet Engineering Task Force (IETF) Request For Comments (RFC) numbered 2151 ~~which may be found at <http://www.ietf.org/rfc/rfc2151.txt>~~, *nslookup* (actually DNS lookups) is explained in the IETF RFC numbered 2535 ~~which may be found at <http://www.ietf.org/rfc/rfc2535.txt>~~, and *whois* is explained in the IETF RFC numbered 954 ~~which may be found at <http://www.ietf.org/rfc/rfc0954.txt>~~. A brief explanation of each of *host*, *nslookup*, *ping*, *traceroute*, and *whois* is given below. In explaining the operation of these commands, source host refers to the machine that the system 10 is run on and target host refers to the machine

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being searched for by the system 10, such as target host 34. A more detailed explanation of these commands is available via the RFCs specified or manual pages on a UNIX system.

*Please replace the paragraph beginning on page 17, line 24 with the following paragraph:*

From the results of this query, the system 10 determines that the large block from 209.153.192.0 to 209.153.255.255 is assigned to an organization, Starcom International Optics Corp. STARCOM INTERNATIONAL OPTICS CORP. Within this block, Starcom the organization, STARCOM INTERNATIONAL OPTICS CORP., has assigned Worldway Holdings Inc. another organization, WORLDWAY HOLDINGS INC., the 209.153.199.0 to 209.153.199.255 block. By further querying this block (NETBLK-WWAY-NET-01) the collection system 10 gains insight into where the organization exists. In this case the organization is in Vancouver, British Columbia, as shown below.

*Please replace the paragraph beginning on page 20, line 12 with the following paragraph:*

A preferred method 120 of operation for the determination system 30 will now be described with reference to Figure 5. At 122, the system 30 receives a request for the geographic location of an entity and, as discussed above, receives one or both of the IP address and domain name. At 123, the determination system 30 searches the database 20 for

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the geographic location for the data provided, checking to see if the information has already been obtained. When searching for an IP address at 123, the system 30 also tries to find either the same exact IP address listed in the database 20 or a range or block of IP addresses listed in the database 20 that contains the IP address in question. If the IP address being searched for is within a block of addresses, the determination system 30 considers it a match, the information is retrieved at ~~125~~ 126, and the geographic information is delivered to the requestor 40 at ~~126~~ 127. If the information is not available in database 20, as determined at 124, then at ~~127~~ 125 ~~the system 30 informs the requestor 40 that the information is not known.~~ At 128, the system 30 ~~then~~ determines the geographic location of the unknown IP address and stores the result in the database 20. The geographic information is sent to the requestor 40 at 127. As an alternative at 125 to ~~stating that determining the geographic location is unknown information,~~ the system 30 could ~~determine inform the geographic information and provide the information to the requestor 40 that the information is not known.~~